



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,252	06/26/2003	Jing C. Chang	SO0023 US NA	4978

23906 7590 11/18/2005

E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
4417 LANCASTER PIKE
WILMINGTON, DE 19805

EXAMINER

EASHOO, MARK

ART UNIT	PAPER NUMBER
----------	--------------

1732

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

46

Office Action Summary	Application No. 10/607,252	Applicant(s) CHANG ET AL.	
	Examiner Mark Eashoo, Ph.D.	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 29-34,37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-8,12-14 and 18-28 is/are rejected.
- 7) ☒ Claim(s) 2,4,9-11,15-17,35 and 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/04, 2/04</u> | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1732

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 1-28 and 35-36 in the reply filed on 22-AUG-2005 is acknowledged.

Claims withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected 24-34 and 37, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 22-AUG-2005.

Information Disclosure Statement

The information disclosure statements filed Jan-2004 and Feb-2004 comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Accordingly, they have been placed in the application file and the information referred to therein has been considered as to the merits. However, it is noted that several foreign references have not been considered because a copy of each non-considered reference has not been received by the Office.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7, 8, 12, 18, 21-23, and 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2000-239927 (citations below are from the English translation).

JP 2000-239927 teaches the claimed process, comprising: providing two poly(trimethylene terephthalate) melts to a spinneret (example 1); altering/adjusting the intrinsic/limiting viscosity between two poly(trimethylene terephthalate) to about 0.1 (para. 14); spinning a bicomponent fiber (example 1); and side-by-side fibers (fig. 1); copolymers of various co-monomers (pg. 3 and examples).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any

Art Unit: 1732

inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3, 5, 6, 13, 14, 19, 20 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-239927 (citations below are from the English translation) in view of applicant's admitted prior art (see US 2004/0222544 A1).

JP 2000-239927 teaches the basic claimed process, comprising: providing two poly(trimethylene terephthalate) melts to a spinneret (example 1); altering/adjusting the intrinsic/limiting viscosity between two poly(trimethylene terephthalate) (para. 14); spinning a bicomponent fiber (example 1).

JP 2000-239927 does not teach adjusting the intrinsic/limiting viscosity by via a melt residence time or melt temperature. However, Official Notice is given that melt polymerization of poly(trimethylene terephthalate) is well known to increase the intrinsic/limiting viscosity until a certain level, then after time if the polymerization continues, the intrinsic viscosity will decrease. As such, a person of ordinary skill in the art would have found it obvious, if not intrinsic therein, to have optimized the melt residence time to stop the polymerization in order to achieve a desired degree of polymerization (ie. intrinsic viscosity). Furthermore, it is known to either make a large scale polymerizations and split it into multiple melt streams or simply perform multiple batches.

JP 2000-239927 does not teach sheath-and-core or island-in-the-sea shaped fibers. However, Official Notice is given that various fiber shapes including sheath-and-core or island-in-the-sea shaped fibers are well known in the art. Applicant's admission also states that sheath-and-core fibers are known (paras. 1-10). As such, a person of ordinary skill in the art would have found it obvious to have formed the fibers into these shapes, using the process of JP 2000-239927, in order to form a different fiber having different, but desired, physical properties.

JP 2000-239927 does not teach polyesters blended with other polymers or comprising small amounts of polyamides. Nonetheless, Official Notice is given that various polyesters blended with other polymers or comprising small amounts of polyamides are well known in the art. Applicant's admission also states various polyester blends are known (paras. 1-10). As such, a person of ordinary skill in the art would have found it obvious to have formed the fibers using these different materials, using the process of JP 2000-239927, in order to form a different fiber having different, but desired, physical properties.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached form PTO-892.

Art Unit: 1732

Allowable Subject Matter

Claims 2, 4, 9, 10, 11, 15-17 and 35-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

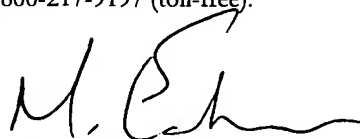
The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach the instantly claimed process, as a whole, the melt spinning of a bicomponent fiber from two poly(trimethylene terephthalate) remelt systems wherein at least one of the remelt systems is operated to adjust/alter the inherent viscosity by at least about 0.03 dL/g.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732

14/Nov/05

14 November 2005
me